

Alon Bakersfield Property, Inc. (Alon)

Class I Non-Hazardous Waste Injection Well Permit No. R9-UIC-CA1-FY18-2

Response to Comments

Description of Changes to the Draft Permit

Pursuant to Title 40 Code of Federal Regulations, 40 CFR § 124.17(a)(1), EPA's final permit decision includes changes to certain provisions of the draft Permit, as specified below in Items 1 and 2. In addition to the descriptions of changes, EPA provides the reasons for the changes in this final Permit decision.

1. EPA updated the mechanism for adjusting the Injection Pressure Limitation and Injection Volume Limitation following a review of the results of the Step Rate Test (SRT) from a minor modification of the Permit to an attachment to the Permit. This revision streamlines the administrative effort to incorporate the updated limits.
2. EPA revised the proposed surface location of Replacement Well WD-3 to correct a typographical error in the draft Permit.

Summary of Significant Public Comments and EPA Response to Comments

Pursuant to 40 CFR § 124.17(a)(2), EPA has summarized and prepared a response to all comments raised during the public comment period on the draft Permit, which was open from September 30, 2019 through November 29, 2019.

EPA received comments from three (3) entities. For clarity, EPA organizes the comments and responses below under topical headings.

Commenter 1: Andrew Graf, Attorney, on behalf of Safe Fuel and Energy Resources California (**hereinafter SAFER**)

Commenter 2: Staff on behalf of the California State Water Resources Control Board, Central Valley Regional Water Quality Control Board (**hereinafter RWQCB or the Regional Board**)

Commenter 3: Maureen Bright, Attorney, on behalf of Tricor Energy LLC and Rosedale Land Venture 1, LLC (**hereinafter, Tricor**)

Extension of Public Comment Period

1. SAFER wrote EPA on October 25, 2019 and requested that EPA extend the public comment period by 30 days to allow SAFER more time to review the draft Permit.

EPA Response: EPA extended the public comment period by 30 days, to November 29, 2019.

Nearby Injection Projects

2. The RWQCB and Tricor expressed concern about other proposed nearby injection projects and the impact of the Alon Bakersfield Property (Alon) Permit on the Zone of Endangering Influence (ZEI) calculations for those proposed projects.

First, the Regional Board described a proposed injection project, the San Joaquin Facilities Management, Inc. Injection Project (the SJFM Project), located near the Alon facility. According to the Regional Board, the wells proposed in the SJFM Project are located between 1,269 and 2,827 feet from one of the wells approved by this Permit, and the Regional Board expressed concern about potential overlap of injection by the SJFM Project into the Santa Margarita Formation, where the Alon injection wells are permitted pursuant to this Permit. Tricor raised a similar concern related to its proposed project, which Tricor stated had been approved by DOGGR and is pending with the Regional Board.

Second, the Regional Board noted a similar concern about the Hathaway LLC project (the Hathaway Project), for which DOGGR has already issued a Project Approval Letter (PAL) potentially authorizing injection into wells completed in the Santa Margarita Formation (a Class II UIC well permit has been issued for one injection well under the Hathaway Project PAL). The Regional Board, in reviewing the Hathaway project (which seeks to increase the number of permitted Class II wells at their facility), noted to EPA that the closest Hathaway Project well is proposed to be located approximately 5,100 feet from the nearest Alon well, so it is unclear to the Regional Board whether injection into these wells would affect each other.

EPA Response: As part of its review of these comments, EPA contacted the California Geologic Energy Management Division (CalGEM), formerly the California Division of Oil, Gas, and Geothermal Resources (DOGGR). CalGEM informed EPA that they believed Tricor is the same as the SJFM Project. Further, CalGEM noted that the SJFM Project has not yet been approved by either California State Agency.

Alon's ZEI for each well authorized for injection under this Permit was calculated pursuant to the requirements set forth in 40 CFR 146.6(a)(i), Area of Review (AOR) and included a review of all currently operating injection wells within the AOR. Additionally, Alon's final EPA Class I UIC Permit requires an annual review of the ZEI calculation (see Permit Section II.C.), beginning in 2021. As such, if the SFJM Project or the Hathaway Project are permitted for Class II injection by CalGEM after the issuance of this Permit, EPA will consider the impacts of any additional wells permitted for injection as part of Alon's annual ZEI review. At this time, the single Hathaway Project well that has received a Class II well permit pursuant to the PAL issued by CalGEM is not located within Alon's ZEI. Furthermore, as noted above, CalGEM has not issued a Class II injection permit for the SJFM Project, which remains under review by the Regional Board and CalGEM. Additionally, in our recent inter-agency communications, CalGEM confirmed that it performs an annual review of the ZEI for any of its permitted Class II wells. This would include the impacts of Alon's Permit approval on the Hathaway Project, as well as the potential SJFM Project, if either are issued permits in the future, and if Alon falls

within the ZEI of any such permitted Class II wells. CalGEM also considers existing injection wells when reviewing applications for Class II permits.

Thus, EPA expects that CalGEM will consider Alon's injection activity, which has been ongoing and permitted under a Regional Board Waste Discharge Order since 1991 and which will now be authorized as Class I injection pursuant to this Permit, prior to issuing any nearby Class II injection permits.

If, during Alon's annual ZEI review, EPA discovers that any nearby injection wells (including potential wells that may be permitted by CalGEM in the future) may be affecting the pressure response of the Alon wells, Alon and/or operators of the wells causing the effect may be required to make adjustments to their operations, in consultation with the appropriate regulating agencies. If EPA determines changes to Alon's Permit are necessary, such changes to the Permit could include pressure monitoring requirements, corrective action of wellbores in the AOR, reduction of injectate volume, or other changes to the Permit, as necessary to protect underground sources of drinking water.

3. Tricor raised concerns that Alon's injectate could migrate under Tricor's leased property, resulting in encroachment on Tricor's leased land.

EPA Response: Property rights are outside the scope of EPA's authority under the UIC permitting provisions of the Safe Drinking Water Act. Indeed, the UIC permitting regulations exclude property rights from the scope of EPA's UIC permitting authority. Specifically, UIC regulations provide that "[t]he issuance of a permit does not convey any property rights of any sort, or any exclusive privilege," and "[t]he issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations." 40 C.F.R. § 144.35(b), (c). Consistent with the SDWA UIC permitting regulations, the draft and final Permit specifically include a provision that mirrors the language of the regulation, as quoted above. See Permit Part III, Section A. Moreover, property or land ownership rights, mineral rights, and pore space ownership are outside the scope of this Permit action, as well as outside the scope of EPA's authority under the Safe Drinking Water Act. *See also In Re: Archer Daniels Midland Co.*, 17 E.A.D. 380 at 19, 2017 WL 2861900 (Jun. 29, 2017).

Injection Zone and Confining Unit

4. The Permit allows injection into the entire Santa Margarita Formation. The Regional Board and Tricor noted the UIC permit should be revised to allow for injection only into the *lower* Santa Margarita Formation.

EPA Response: EPA issued an aquifer exemption for the Santa Margarita Formation in the Fruitvale Oil Field on February 9, 2017, which included an exemption of the complete sequence of the Santa Margarita Formation. As such, injection into the entire Santa Margarita Formation is permitted.

5. Both the Regional Board and Tricor noted that the confining zone in the Permit should be updated to describe a confining layer for the lower Santa Margarita, rather than the Santa Margarita Formation.

EPA Response: Refer to EPA's response to #4, above. Injection into the Santa Margarita Formation is permitted because the entire formation has been exempted as part of EPA's aquifer exemption decision, so the Santa Margarita injection zone is accurately described in the Permit as being confined by the shale at the base of the Chanac Formation.

Well Surface Locations

6. Tricor noted that the surface location of Replacement Well WD-3 was erroneous, as listed in the draft Permit.

EPA Response: The typographical error has been corrected and the correct coordinates of Replacement Well WD-3 are listed in the final Permit on page 7.

7. Tricor noted that the Permit only identifies potential surface locations for Replacement Wells WD-1D, WD-2D, WD-3D and WD-7D and raised a concern about the proximity of the Replacement Wells to the boundary lines of Tricor's adjacent leased oil and gas property.

EPA Response: Prior to issuance by EPA of authorization to drill and install any of the Replacement Wells under the Permit, Alon is required to submit a drilling plan to EPA for review and approval. Proposed approximate bottom-hole locations would be a part of the drilling plan and EPA's consideration of any proposed Replacement Well installation will evaluate the waste front migration and ZEI prior to approving any potential Replacement Wells.